RAW SEQUENCE LISTING
PATENT APPLICATION US/09/497,591

DATE: 03/01/2000
TIME: 10:30:18

Input Set: I497591.RAW

This Raw Listing contains the General Information Section and up to first 5 pages.

<110> APPLICANT: Nelsestuen, Gary L.
<120> TITLE OF INVENTION: MODIFIED VITAMIN K-DEPENDENT
POLYPEPTIDES
<130> FILE REFERENCE: 09531-016001
<140> CURRENT APPLICATION NUMBER: US/09/497,591
<141> CURRENT FILING DATE: 2000-02-03
<150> EARLIER APPLICATION NUMBER: 09/302,239
<151> EARLIER FILING DATE: 1999-04-29
<150> EARLIER APPLICATION NUMBER: 08/955,636
<151> EARLIER FILING DATE: 1997-10-23
<160> NUMBER OF SEQ ID NOS: 21
<170> SOFTWARE: FastSEQ for Windows Version 4.0
<210> SEQ ID NO 1
<211> LENGTH: 44
<212> TYPE: PRT
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: MOD_RES
<222> LOCATION: (0)...(0)
<223> OTHER INFORMATION: Xaa=gamma carboxyglutamic acid or glutamic acid
<400> SEQUENCE: 1

W--> **Ala Asn Ser Phe Leu Xaa Xaa Leu Arg His Ser Ser Leu Xaa Arg Xaa**
1 5 10 15
W--> **Cys Ile Xaa Xaa Ile Cys Asp Phe Xaa Xaa Ala Lys Xaa Ile Phe Gln**
20 25 30
Asn Val Asp Asp Thr Leu Ala Phe Trp Ser Lys His
35 40

<210> SEQ ID NO 2
<211> LENGTH: 44
<212> TYPE: PRT
<213> ORGANISM: Bos taurus
<220> FEATURE:
<221> NAME/KEY: MOD_RES
<222> LOCATION: (0)...(0)
<223> OTHER INFORMATION: Xaa=gamma carboxyglutamic acid or glutamic acid
<400> SEQUENCE: 2

W--> **Ala Asn Ser Phe Leu Xaa Xaa Leu Arg Pro Gly Asn Val Xaa Arg Xaa**
1 5 10 15
W--> **Cys Ser Xaa Xaa Val Cys Xaa Phe Xaa Xaa Ala Arg Xaa Ile Phe Gln**
20 25 30
W--> **Asn Thr Xaa Asp Thr Met Ala Phe Trp Ser Phe Tyr**
35 40

<210> SEQ ID NO 3
<211> LENGTH: 44

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     45  <212> TYPE: PRT
     46  <213> ORGANISM: Homo sapiens
     47  <220> FEATURE:
     48  <221> NAME/KEY: MOD_RES
     49  <222> LOCATION: (0)...(0)
     50  <223> OTHER INFORMATION: Xaa=gamma carboxyglutamic acid or glutamic acid
     51  <400> SEQUENCE: 3
W--> 52       Ala Asn Ala Phe Leu Xaa Xaa Leu Arg Pro Gly Ser Leu Xaa Arg Xaa
     53        1               5                  10                  15
W--> 54       Cys Lys Xaa Xaa Gln Cys Ser Phe Xaa Xaa Ala Arg Xaa Ile Phe Lys
     55                    20                  25                  30
W--> 56       Asp Ala Xaa Arg Thr Lys Leu Phe Trp Ile Ser Tyr
     57                35                  40
     58  <210> SEQ ID NO 4
     59  <211> LENGTH: 44
     60  <212> TYPE: PRT
     61  <213> ORGANISM: Bos taurus
     62  <220> FEATURE:
     63  <221> NAME/KEY: MOD_RES
     64  <222> LOCATION: (0)...(0)
     65  <223> OTHER INFORMATION: Xaa=gamma carboxyglutamic acid or glutamic acid
     66  <400> SEQUENCE: 4
W--> 67       Ala Asn Gly Phe Leu Xaa Xaa Leu Arg Pro Gly Ser Leu Xaa Arg Xaa
     68        1               5                  10                  15
W--> 69       Cys Arg Xaa Xaa Leu Cys Ser Phe Xaa Xaa Ala His Xaa Ile Phe Arg
     70                    20                  25                  30
W--> 71       Asn Xaa Xaa Arg Thr Arg Gln Phe Trp Val Ser Tyr
     72                35                  40
     73  <210> SEQ ID NO 5
     74  <211> LENGTH: 45
     75  <212> TYPE: PRT
     76  <213> ORGANISM: Homo sapiens
     77  <220> FEATURE:
     78  <221> NAME/KEY: MOD_RES
     79  <222> LOCATION: (0)...(0)
     80  <223> OTHER INFORMATION: Xaa=gamma carboxyglutamic acid or glutamic acid
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     83        1               5                  10                  15
W--> 84       Xaa Cys Met Xaa Xaa Lys Cys Ser Phe Xaa Xaa Ala Arg Xaa Val Phe
     85                    20                  25                  30
W--> 86       Xaa Asn Thr Xaa Arg Thr Thr Xaa Phe Trp Lys Gln Tyr
     87                35                  40                  45
     88  <210> SEQ ID NO 6
     89  <211> LENGTH: 46
     90  <212> TYPE: PRT
     91  <213> ORGANISM: Bos taurus
     92  <220> FEATURE:
     93  <221> NAME/KEY: MOD_RES
     94  <222> LOCATION: (0)...(0)
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     95  <223> OTHER INFORMATION: Xaa=gamma carboxyglutamic acid or glutamic acid
     96  <400> SEQUENCE: 6
W--> 97  Tyr Asn Ser Gly Lys Leu Xaa Xaa Phe Val Gln Gly Asn Leu Xaa Arg
     98   1               5                  10                  15
W--> 99  Xaa Cys Met Xaa Xaa Lys Cys Ser Phe Xaa Xaa Ala Arg Xaa Val Phe
    100              20                  25                  30
W--> 101 Xaa Asn Thr Xaa Lys Arg Thr Thr Xaa Phe Trp Lys Gln Tyr
    102              35                  40                  45
    103  <210> SEQ ID NO 7
    104  <211> LENGTH: 36
    105  <212> TYPE: DNA
    106  <213> ORGANISM: Artificial Sequence
    107  <220> FEATURE:
    108  <223> OTHER INFORMATION: Protein C mutagenic oligonucleotide
    109  <400> SEQUENCE: 7
    110  aaattaatac gactcactat agggagaccc aagctt                              36
    111  <210> SEQ ID NO 8
    112  <211> LENGTH: 42
    113  <212> TYPE: DNA
    114  <213> ORGANISM: Artificial Sequence
    115  <220> FEATURE:
    116  <223> OTHER INFORMATION: Protein C mutagenic oligonucleotide
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    118  gcactcccgc tccaggctgc tgggacggag ctcctccagg aa                       42
    119  <210> SEQ ID NO 9
    120  <211> LENGTH: 36
    121  <212> TYPE: DNA
    122  <213> ORGANISM: Artificial Sequence
    123  <220> FEATURE:
    124  <223> OTHER INFORMATION: Protein C mutagenic oligonucleotide
    125  <400> SEQUENCE: 9
    126  acgctccacg ttgccgtgcc gcagctcctc taggaa                              36
    127  <210> SEQ ID NO 10
    128  <211> LENGTH: 36
    129  <212> TYPE: DNA
    130  <213> ORGANISM: Artificial Sequence
    131  <220> FEATURE:
    132  <223> OTHER INFORMATION: Protein C mutagenic oligonucleotide
    133  <400> SEQUENCE: 10
    134  ttcctagagg agctgcggca cggcaacgtg gagcgt                              36
    135  <210> SEQ ID NO 11
    136  <211> LENGTH: 36
    137  <212> TYPE: DNA
    138  <213> ORGANISM: Artificial Sequence
    139  <220> FEATURE:
    140  <223> OTHER INFORMATION: Protein C mutagenic oligonucleotide
    141  <400> SEQUENCE: 11
    142  gcatttaggt gacactatag aatagggccc tctaga                              36
    143  <210> SEQ ID NO 12
    144  <211> LENGTH: 42
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145   <212> TYPE: DNA
146   <213> ORGANISM: Artificial Sequence
147   <220> FEATURE:
148   <223> OTHER INFORMATION: Protein C mutagenic oligonucleotide
149   <400> SEQUENCE: 12
150         gaaggccatt gtgtcttccg tgtcttcgaa aatctcccga gc                    42
151   <210> SEQ ID NO 13
152   <211> LENGTH: 36
153   <212> TYPE: DNA
154   <213> ORGANISM: Artificial Sequence
155   <220> FEATURE:
156   <223> OTHER INFORMATION: Protein C mutagenic oligonucleotide
157   <400> SEQUENCE: 13
158         cagtgtgtca tccacatctt cgaaaatttc cttggc                           36
159   <210> SEQ ID NO 14
160   <211> LENGTH: 36
161   <212> TYPE: DNA
162   <213> ORGANISM: Artificial Sequence
163   <220> FEATURE:
164   <223> OTHER INFORMATION: Protein C mutagenic oligonucleotide
165   <400> SEQUENCE: 14
166         gccaaggaaa ttttcgaaga tgtggatgac acactg                           36
167   <210> SEQ ID NO 15
168   <211> LENGTH: 36
169   <212> TYPE: DNA
170   <213> ORGANISM: Artificial Sequence
171   <220> FEATURE:
172   <223> OTHER INFORMATION: Protein C mutagenic oligonucleotide
173   <400> SEQUENCE: 15
174         cagtgtgtca tccacatttt cgaaaatttc cttggc                           36
175   <210> SEQ ID NO 16
176   <211> LENGTH: 36
177   <212> TYPE: DNA
178   <213> ORGANISM: Artificial Sequence
179   <220> FEATURE:
180   <223> OTHER INFORMATION: Protein C mutagenic oligonucleotide
181   <400> SEQUENCE: 16
182         gccaaggaaa ttttcgaaaa tgtggatgac acactg                           36
183   <210> SEQ ID NO 17
184   <211> LENGTH: 45
185   <212> TYPE: PRT
186   <213> ORGANISM: Bos taurus
187   <220> FEATURE:
188   <221> NAME/KEY: MOD_RES
189   <222> LOCATION: (0)...(0)
190   <223> OTHER INFORMATION: Xaa=gamma carboxyglutamic acid or glutamic acid
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193          1               5                  10                  15
W--> 194         Xaa Cys Leu Xaa Xaa Pro Cys Ser Arg Xaa Xaa Ala Phe Xaa Ala Leu
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      195                   20                  25                  30
W-->  196         Xaa Ser Leu Ser Ala Thr Asp Ala Phe Trp Ala Lys Tyr
      197                35                  40                  45
      198   <210> SEQ ID NO 18
      199   <211> LENGTH: 44
      200   <212> TYPE: PRT
      201   <213> ORGANISM: Bos taurus
      202   <220> FEATURE:
      203   <221> NAME/KEY: MOD_RES
      204   <222> LOCATION: (0)...(0)
      205   <223> OTHER INFORMATION: Xaa=carboxyglutamic acid or glutamic acid
      206   <400> SEQUENCE: 18
W-->  207         Ala Asn Ser Phe Leu Xaa Xaa Val Lys Gln Gly Asn Leu Xaa Arg Xaa
      208          1               5                  10                  15
W-->  209         Cys Leu Xaa Xaa Ala Cys Ser Leu Xaa Xaa Ala Arg Xaa Val Phe Xaa
      210                   20                  25                  30
W-->  211         Asp Ala Xaa Gln Thr Asp Xaa Phe Trp Ser Lys Tyr
      212                35                  40
      213   <210> SEQ ID NO 19
      214   <211> LENGTH: 44
      215   <212> TYPE: PRT
      216   <213> ORGANISM: Homo sapiens
      217   <220> FEATURE:
      218   <221> NAME/KEY: MOD_RES
      219   <222> LOCATION: (0)...(0)
      220   <223> OTHER INFORMATION: Xaa=carboxyglutamic acid or glutamic acid
      221   <400> SEQUENCE: 19
W-->  222         Ala Asn Ser Leu Leu Xaa Xaa Thr Lys Gln Gly Asn Leu Xaa Arg Xaa
      223          1               5                  10                  15
W-->  224         Cys Ile Xaa Xaa Leu Cys Asn Lys Xaa Xaa Ala Arg Xaa Val Phe Xaa
      225                   20                  25                  30
W-->  226         Asn Asp Pro Xaa Thr Asp Tyr Phe Tyr Pro Lys Tyr
      227                35                  40
      228   <210> SEQ ID NO 20
      229   <211> LENGTH: 45
      230   <212> TYPE: PRT
      231   <213> ORGANISM: Homo sapiens
      232   <220> FEATURE:
      233   <221> NAME/KEY: MOD_RES
      234   <222> LOCATION: (0)...(0)
      235   <223> OTHER INFORMATION: Xaa=carboxyglutamic acid or glutamic acid
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W-->  237         Ala Gly Ser Tyr Leu Leu Xaa Xaa Leu Phe Xaa Gly Asn Leu Xaa Lys
      238          1               5                  10                  15
W-->  239         Xaa Cys Tyr Xaa Xaa Ile Cys Val Tyr Xaa Xaa Ala Arg Xaa Val Phe
      240                   20                  25                  30
W-->  241         Xaa Asn Xaa Val Val Thr Asp Xaa Phe Trp Arg Arg Tyr
      242                35                  40                  45
      243   <210> SEQ ID NO 21
      244   <211> LENGTH: 45
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY
PATENT APPLICATION **US/09/497,591**

Input Set: **I497591.RAW**

Line	?	Error/Warning	Original Text
22	W	"N" or "Xaa" used: Feature required	Ala Asn Ser Phe Leu Xaa Xaa Leu Arg His S
24	W	"N" or "Xaa" used: Feature required	Cys Ile Xaa Xaa Ile Cys Asp Phe Xaa Xaa A
37	W	"N" or "Xaa" used: Feature required	Ala Asn Ser Phe Leu Xaa Xaa Leu Arg Pro G
39	W	"N" or "Xaa" used: Feature required	Cys Ser Xaa Xaa Val Cys Xaa Phe Xaa Xaa A
41	W	"N" or "Xaa" used: Feature required	Asn Thr Xaa Asp Thr Met Ala Phe Trp Ser P
52	W	"N" or "Xaa" used: Feature required	Ala Asn Ala Phe Leu Xaa Xaa Leu Arg Pro G
54	W	"N" or "Xaa" used: Feature required	Cys Lys Xaa Xaa Gln Cys Ser Phe Xaa Xaa A
56	W	"N" or "Xaa" used: Feature required	Asp Ala Xaa Arg Thr Lys Leu Phe Trp Ile S
67	W	"N" or "Xaa" used: Feature required	Ala Asn Gly Phe Leu Xaa Xaa Leu Arg Pro G
69	W	"N" or "Xaa" used: Feature required	Cys Arg Xaa Xaa Leu Cys Ser Phe Xaa Xaa A
71	W	"N" or "Xaa" used: Feature required	Asn Xaa Xaa Arg Thr Arg Gln Phe Trp Val S
82	W	"N" or "Xaa" used: Feature required	Tyr Asn Ser Gly Lys Leu Xaa Xaa Phe Val G
84	W	"N" or "Xaa" used: Feature required	Xaa Cys Met Xaa Xaa Lys Cys Ser Phe Xaa X
86	W	"N" or "Xaa" used: Feature required	Xaa Asn Thr Xaa Arg Thr Thr Xaa Phe Trp L
97	W	"N" or "Xaa" used: Feature required	Tyr Asn Ser Gly Lys Leu Xaa Xaa Phe Val G
99	W	"N" or "Xaa" used: Feature required	Xaa Cys Met Xaa Xaa Lys Cys Ser Phe Xaa X
101	W	"N" or "Xaa" used: Feature required	Xaa Asn Thr Xaa Lys Arg Thr Thr Xaa Phe T
192	W	"N" or "Xaa" used: Feature required	Ala Asn Lys Gly Phe Leu Xaa Xaa Val Arg L
194	W	"N" or "Xaa" used: Feature required	Xaa Cys Leu Xaa Xaa Pro Cys Ser Arg Xaa X
196	W	"N" or "Xaa" used: Feature required	Xaa Ser Leu Ser Ala Thr Asp Ala Phe Trp A
207	W	"N" or "Xaa" used: Feature required	Ala Asn Ser Phe Leu Xaa Xaa Val Lys Gln G
209	W	"N" or "Xaa" used: Feature required	Cys Leu Xaa Xaa Ala Cys Ser Leu Xaa Xaa A
211	W	"N" or "Xaa" used: Feature required	Asp Ala Xaa Gln Thr Asp Xaa Phe Trp Ser L
222	W	"N" or "Xaa" used: Feature required	Ala Asn Ser Leu Leu Xaa Xaa Thr Lys Gln G
224	W	"N" or "Xaa" used: Feature required	Cys Ile Xaa Xaa Leu Cys Asn Lys Xaa Xaa A
226	W	"N" or "Xaa" used: Feature required	Asn Asp Pro Xaa Thr Asp Tyr Phe Tyr Pro L
237	W	"N" or "Xaa" used: Feature required	Ala Gly Ser Tyr Leu Leu Xaa Xaa Leu Phe X
239	W	"N" or "Xaa" used: Feature required	Xaa Cys Tyr Xaa Xaa Ile Cys Val Tyr Xaa X
241	W	"N" or "Xaa" used: Feature required	Xaa Asn Xaa Val Val Thr Asp Xaa Phe Trp A
252	W	"N" or "Xaa" used: Feature required	Ala Gly Ser Tyr Leu Leu Xaa Xaa Leu Phe X
254	W	"N" or "Xaa" used: Feature required	Lys Cys Trp Xaa Xaa Ile Cys Val Tyr Xaa X
256	W	"N" or "Xaa" used: Feature required	Xaa Asp Asp Xaa Thr Thr Asp Xaa Phe Trp A